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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/302,941	04/30/1999	JAMES T. VELIGDAN	BSA99-06	7667

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EXAMINER

KIM, AHSHIK

ART UNIT PAPER NUMBER

2876

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/302,941

Applicant(s)

VELLIGDAN, JAMES T.

Examiner

Ahshik Kim

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response

1. Receipt is acknowledged of the response filed on March 26, 2003. In the response, the
5 Applicant further explained the distinction between the instant application and the reference cited
by the Examiner. Claims 1-23 remain for examination.

Information Disclosure Statement

2. As requested by the applicant, incorrect patent number to Koenck et al. (US 5,410,141)
10 on initially submitted PTO-1449 has been corrected, and a copy of the corrected form is enclosed
in this Office Action.

Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
15 obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a person
20 having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the
manner in which the invention was made.

3. Claims 1, 2, and 5-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Eastman (US 5,786,585) in view of Schmutz et al. (US 5,633,487, previously cited).

Re claims 1 and 7, Eastman teaches a barcode reader 10 with a projector (col. 3, lines 42
25 – 46), light sensor (col. 1, lines 57 – 61) and a decoder (col. 5, lines 64 – 67).

Eastman fails to specifically teach or fairly suggest of using wave-guides in the barcode.

Schmutz teaches a barcode reader (see abstract) with wedge-shaped wave-guides 48 (col. 1, lines 49+; col. 4, lines 62+) as recited in claim 7. As shown in figure 3 (col. 4, lines 62+), the waveguides are produced by parallelly tacking layers of substrates with constant spacing between the layers.

5 In view of Schumutz's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to employ well-known optical wave-guide to the teachings of Eastman in order to efficiently transmit light from the source to remote locations and return light from remote locations to the sensors. Further, wave-guide helps preventing light from refracting, and thus light in low intensity will still register via wave-guide, and thus obvious
10 expedient.

Re claims 5, 6, 8, and 9, Eastman teaches a light coupler which is a Fresnel refractive lens (col. 3, line 62 – col. 4, line 1). Although Eastman does not specifically point out the configuration or dimension of the scanner parts, it is obvious that various lenses, gratings, reflectors are integrated to make barcode functional (col. 4, lines 7 – 14).

15 Re claims 10–12, Eastman teaches an array of photodiode (col. 3, line 59 – col. 4, line 1). As mentioned above, a particular arrangement of these parts are a design variation.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eastman modified by Schmutz as applied to claim 1 above, and further in view of Detwiler (US 6,045,046). The
20 teachings of Eastman as modified by Schmutz have been discussed above.

Eastman/Schmutz fail to specifically teach or fairly suggest of a rotary spinner and cooperating pattern mirrors.

Art Unit: 2876

Detwiler teaches a barcode scanner with rotary spinner and cooperating pattern mirrors (col. 2, lines 45 – 57).

In view of Detwiler's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to incorporate well-known device of spinner and mirrors to the teachings of Eastman/Schmutz in order to create multi-directional scanning beams and improve scanning method. Further, users will be saved from the effort of aligning barcode reader to a particular direction, and thus an obvious expedient.

Response to Remarks

5. Examiner appreciates Applicant's kind explanations and diagramming the waveguide disclosed in the Agabra patent. Although not explicitly stated, Examiner recognizes that the Agabra patent is relatively silent on the structure of waveguides. Accordingly, the Agabra patent does not teach wave guides such that "a plurality of stacked waveguides" in claim 1. In view of the above, Examiner made this Office Action, non-final.

Allowable Subject Matter

6. Claims 3 and 13-23 are allowed.

7. The following is an examiner's statement of reasons for the indication of allowable subject matter: The claims are directed at a barcode reader that incorporates video display

projector projecting both scan beam and video beam in a manner not taught or suggested in the prior art of record, and set forth in the claim 3 and 13 – 23.

Art Unit: 2876

Conclusion

I. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Lee et al. (US 5,248,977) discloses an image scanning system comprising a waveguides.

5 II. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Ahshik Kim* whose telephone number is (703)305-5203 . The examiner can normally be reached between the hours of 6:00AM to 3:00PM Monday thru Friday.

10 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax number directly to the Examiner is (703) 746-4782. The fax phone number for this Group is (703)308-7722, (703)308-7724, or (703)308-7382.

15 Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [ahshik.kim@uspto.gov].

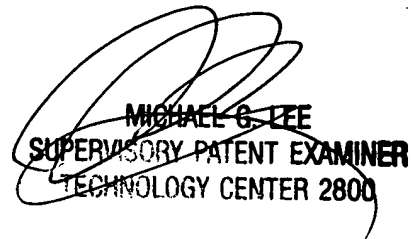
20 *All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.*

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

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Ahshik Kim
Patent Examiner
Art Unit 2876
30 July 7, 2003



MICHAEL G. LEE
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